

ABSTRACT OF THE DISCLOSURE

A curve's radius of a road on which a vehicle shall run is estimated based on actual speed, yaw rate, and steering angle of the vehicle. Accordingly, during a transition state of the vehicle, the curve's radius can be estimated with the actual yaw rate taking into account the actual steering angle that can reflect more accurately turning behavior of the vehicle than the actual yaw rate. Therefore, errors in the estimation of the curve's radius due to response delay of the actual yaw rate can be easily reduced even though the yaw rate is used for such estimation.